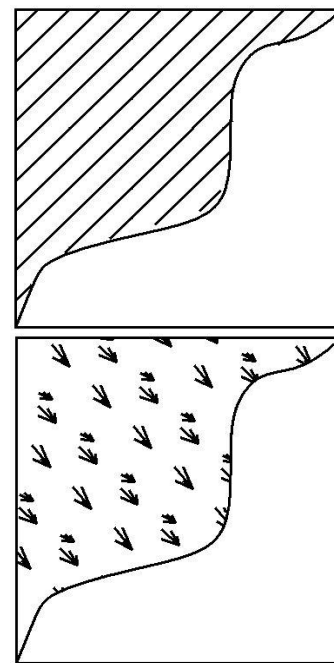


EC-12 VEGETATION/SEEDING

For assistance, consult the Roadside Manager in the ITD Headquarters Maintenance Section.
Refer to: ITD Standards and Specifications for Highway Construction, Sections 212 and 621.



Standard Symbol

Definition and Purpose

Temporary vegetation/seeded (cover crop) is the process of growing, from seed, a vegetative cover on disturbed areas for short-term erosion control during construction and maintenance soil-disturbing activities.

The purpose of temporary vegetation/seeded is to stabilize slopes and surface areas by using rapid-germinating and fast-growing grasses or legumes, such as annual rye, cereal (barley, wheat, oats), or sterile hybrid grains. Added to approved hydro-mulch/tackifier/bonding fibers, vegetation/seeded can provide additional and cost-effective temporary soil stabilization and erosion control.

Temporary vegetation can act as a nurse crop that, when added to permanent seeding, can quickly provide an additional root system that helps stabilize and anchor disturbed surface areas subject to extensive erosion. Temporary vegetation allows permanent vegetation time to establish.

The primary advantages of temporary vegetation/seeded are as follows:

- Is generally inexpensive and easy to obtain (can be tank-mixed with approved hydro-mulches, tackifiers, and/or bonding fibers).
- Quickly provides effective soil stabilization when conditions (favorable precipitation and temperatures) are conducive to good germination and plant growth.

BMP Objectives

- | | |
|-------------------------------------|-----------------------|
| <input type="checkbox"/> | Perimeter Control |
| <input checked="" type="checkbox"/> | Slope Protection |
| <input checked="" type="checkbox"/> | Borrow and Stockpiles |
| <input checked="" type="checkbox"/> | Drainage Areas |
| <input type="checkbox"/> | Sediment Trapping |
| <input type="checkbox"/> | Stream Protection |
| <input checked="" type="checkbox"/> | Temporary Stabilizing |
| <input checked="" type="checkbox"/> | Permanent Stabilizing |

- Adds to permanent seeding as a nurse crop or can be over-seeded with permanent seeding
- Provides a quicker short-term vegetative growth that will assist in erosion control until the permanent vegetation starts to grow and becomes established.
- Retards the invasion and growth of undesirable weeds and provides good aesthetic qualities.
- Complements other temporary BMP erosion control measures (reduces sedimentation and the cost associated [during construction] with maintenance of other erosion control measures, such as cleaning out in front of ditch checks and sediment trap basins).
- Can be repaired or reseeded after disturbance.

Appropriate Applications

- Typical disturbed areas to consider for temporary vegetation are slides, washouts, slopes, guttering, topsoil stockpiles, temporary excavation or embankment areas, dikes, berms, dams, sediment trap basins (sides and top), and road banks.
- Temporary vegetation should be considered for any disturbed area where the potential for erosion may occur or where the disturbed area is required to receive a temporary soil stabilization BMP because of exposure to stormwater or wind after the last construction or maintenance activity (time limitation).
- Temporary vegetation can also be applied on surface areas prior to permanent vegetation to allow permanent seeding to take place at the appropriate times (season of seeding).

Limitations

Establishment of temporary vegetation depends on favorable temperatures and precipitation. The optimum time for establishing temporary vegetation is usually in the spring (January-May) or fall (September-December). Unless establishment water is used, temporary seeding in the summer months (June-August) is usually not effective and other temporary soil stabilizations and erosion control BMPs should be considered or relied upon. The same limitation applies to temporary seeding on frozen ground or in deep snow.

Design Parameters

- Temporary vegetation should be utilized in combination with other temporary erosion control practices. Vegetation/seeding would consist of the hydro application of approved seed (optional), soil binders, tackifiers, bonding fibers, and wood fiber mulch at the prescribed rate.
- Some soil binders and tackifiers will impede or interfere with seed germination and plant growth.
- Additional information can be obtained from TN Plant Materials No. 24, Improved Grass, Forb, Legume, and Woody Seed Species for The Intermountain West (USDA – Natural Resources Conservation Service) or the ITD Roadside Vegetation Guidebook.

Construction Guidelines

- Install structural or more permanent erosion control practices, such as dikes, basins, and berms before seeding.
- Use clean, high-quality certified seed. Ensure proper selection of seed through coordination with appropriate ITD staff.
- Loosen compacted soil prior to seeding.
- Mix the temporary seed with other approved soil stabilization and erosion control products to provide better erosion control results. In the event that the seeding fails, the other products may provide the required temporary erosion control.
- Re-seed when necessary.
- Make field adjustments as necessary to ensure proper performance.

Maintenance and Inspection

- Conduct inspections as required by the NPDES permit or contract specifications.
- Check for areas where protective measures (such as mulches or matting) have failed, or where plant growth is not proceeding at the desired rate. Indicate which areas need to be reseeded and where other treatments are necessary to establish the desired vegetative cover. Apply seed or other treatments immediately.
- Removal of temporary vegetation prior to a more permanent BMP such as permanent seeding is usually not necessary. If temporary vegetation is too high for a permanent vegetation application to come into positive contact with the soil, mowing or cutting the temporary vegetation may be required.